

R version 4.0.1 (2020-06-06) -- "See Things Now"
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Platform: x86_64-apple-darwin17.0 (64-bit)

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Natural language support but running in an English locale

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'help.start()' for an HTML browser interface to help.
Type 'q()' to quit R.

[R.app GUI 1.72 (7845) x86_64-apple-darwin17.0]

[History restored from /Users/ryanbrutger/.Rapp.history]

```
>
> # Replication code for Ryan Brutger and Amy Pond's PSRM manuscript (Last updated March 10, 2025)
> # This r script generates the results for the manuscript and appendix for the survey results
>
> # Code was run on R version R version 3.6.1 (2019-07-05) -- "Action of the Toes"
> # Using MacBook Pro using macOS Ventura, with 2.8 GHz Quad-Core Intel Core i7
>
> # To generate the marginal effects plats, you must first run the companion R script
> # "interaction_plots.R" to generate functions created by Anton Strezhnev (06/17/2013)
>
> ##### 1. Load libraries, load and clean data #####
>
> # First, set your working directory using the setwd() command:
> setwd()
Error in setwd() : argument "dir" is missing, with no default
>
> #install.packages("pacman")
> pacman::p_load(dplyr, ggplot2, quanteda, plotly, foreign, interplot, plm, reshape2, lda,
+               countrycode, sandwich, lmtest, MASS, RColorBrewer, states, mice, VIM,
+               margins, clusterSEs, optimx, coefplot, systemfit, randomizr, estimatr, ri2,
+               stargazer, fastDummies, cowplot, egg, cobalt, readr, xtable, sjPlot, sjmisc) # load packages
>
>
> #### Data Pre-Processing ####
> data <- read_csv("Antitrust_PSRM_Data_Module_1.csv", col_types = cols (.default = "i", Treat1 = "c", DomFor = "c",
DomFor2 = "c"))
>
>
> # Support in control and full sample mentioned in the text
> mean(data$AT_StrengthPos[data$Control==1], na.rm=TRUE) #59%
[1] 58.71965
>
> # Among Democrats
> mean(data$AT_StrengthPos[data$Control==1 & data$dem==1], na.rm=TRUE) #67%
[1] 67.20779
>
> # Among Republicans
> mean(data$AT_StrengthPos[data$Control==1 & data$rep==1], na.rm=TRUE) #59%
[1] 58.93417
>
>
> # Differences between Rep and Dems
> DemRepData <- subset(data[data$party<3, ]) # subset to only those who identify as Democrat or Republican
> DemRepStrengthen <- lm(AT_StrengthPos ~ dem, data = DemRepData[DemRepData$Control==1, ]) # Test partisan difference
in the control condition
> summary(DemRepStrengthen) # 8.27, p=0.032 reported in the text
```

```
Call:
lm(formula = AT_StrengthPos ~ dem, data = DemRepData[DemRepData$Control ==
1, ])
```

```
Residuals:
    Min     1Q   Median     3Q      Max
-67.21 -58.93  32.79  41.07  41.07
```

```
Coefficients:
              Estimate Std. Error t value Pr(>|t|)
(Intercept)   58.934      2.698   21.85  <2e-16 ***
dem             8.274      3.849    2.15   0.032  *
```

```
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
Residual standard error: 48.18 on 625 degrees of freedom
(6 observations deleted due to missingness)
Multiple R-squared:  0.007339,    Adjusted R-squared:  0.005751
F-statistic: 4.621 on 1 and 625 DF,  p-value: 0.03197
```

```
>
> # Models for Table 1 of manuscript
> AT.Strength <- lm(AT_Strength ~ CompPrices + CompSmall + Punish, data = data) #Main Effects
> AT.Strength.Cont <- lm(AT_Strength ~ CompPrices + CompSmall + Punish + rep + college + male + hh_income, data =
data) #Main Effects with controls
> AT.Strength.int <- lm(AT_Strength ~ CompPrices*rep + CompSmall*rep + Punish*rep, data = data[data$party<3, ])
#Main Effects with Republican interaction, Democrats are baseline
> AT.Strength.int.c <- lm(AT_Strength ~ CompPrices*rep + CompSmall*rep + Punish*rep + college + male + hh_income,
data = data[data$party<3, ])#Main Effects with Republican interaction and controls, Democrats are baseline
>
> # Create Table for all module 1 results
> # Note - signs for significance were manually updated so "cross" is for p<0.1, * for p<0.05, and ** for p<0.01
> stargazer(AT.Strength, AT.Strength.Cont, AT.Strength.int, AT.Strength.int.c, omit.stat = c("rsq", "adj.rsq", "ser",
"f"))
```

```
% Table created by stargazer v.5.2.2 by Marek Hlavac, Harvard University. E-mail: hlavac at fas.harvard.edu
% Date and time: Wed, Mar 12, 2025 - 09:38:28
```

```
\begin{table}[!htbp] \centering
\caption{}
\label{}
\begin{tabular}{@{\extracolsep{5pt}}lcccc}
\hline
\hline \hline
& \multicolumn{4}{c}{\textit{Dependent variable:}} \hline
\cline{2-5}
\hline & \multicolumn{4}{c}{AT_Strength} \hline
\hline & (1) & (2) & (3) & (4) \hline
\hline
CompPrices & 0.003 & 0.003 & -$0.026 & -$0.029 \hline
& (0.043) & (0.043) & (0.073) & (0.073) \hline
& & & & \hline
CompSmall & -$0.017 & -$0.021 & -$0.044 & -$0.046 \hline
& (0.043) & (0.043) & (0.073) & (0.073) \hline
& & & & \hline
Punish & -$0.237^{***} & -$0.232^{***} & -$0.132^{*} & -$0.125 \hline
& (0.043) & (0.043) & (0.077) & (0.077) \hline
& & & & \hline
CompPrices:rep & & & 0.024 & 0.021 \hline
& & & (0.104) & (0.104) \hline
& & & & \hline
rep:CompSmall & & & -$0.082 & -$0.074 \hline
& & & (0.104) & (0.104) \hline
& & & & \hline
rep:Punish & & & -$0.208^{**} & -$0.208^{**} \hline
& & & (0.105) & (0.106) \hline
& & & & \hline
rep & & & -$0.066^{**} & -$0.120^{*} & -$0.136^{*} \hline
& & & (0.032) & (0.073) & (0.073) \hline
```

```

& & & & \\\
college & & 0.127$^{***}$ & & 0.082$^{**}$ \\\
& & (0.033) & & (0.041) \\\
& & & & \\\
male & & 0.085$^{***}$ & & 0.112$^{***}$ \\\
& & (0.031) & & (0.038) \\\
& & & & \\\
hh\_income & & 0.007 & & 0.014 \\\
& & (0.008) & & (0.010) \\\
& & & & \\\
Constant & & 3.706$^{***}$ & & 3.597$^{***}$ & & 3.844$^{***}$ & & 3.706$^{***}$ \\\
& & (0.030) & & (0.042) & & (0.052) & & (0.063) \\\
& & & & \\\
\hline \\\[-1.8ex]
Observations & 3,536 & 3,487 & 2,394 & 2,366 \\\
\hline
\hline \\\[-1.8ex]
\textit{Note:} & \multicolumn{4}{r}{^{*}$p$<$0.1; ^{**}$p$<$0.05; ^{***}$p$<$0.01} \\\
\end{tabular}
\end{table}
>
> #
> # For marginal effects, first run "interaction_plots.R" to generate functions created by Anton Strezhnev 06/17/2013
> #
> ## Two-variable interaction plots in R
> ## Anton Strezhnev
> ## 06/17/2013
>
> ## interaction_plot_continuous: Plots the marginal effect for one variable interacted with a continuous moderator
variable
> ## Usage
> ## Required
> # model: linear or generalized linear model object returned by lm() or glm() function
> # effect: name of the "effect" variable in the interaction (marginal effect plotted on y-axis) - character string
> # moderator: name of the moderating variable in the interaction (plotted on x-axis) - character string
> # interaction: name of the interaction variable in the model object - character string
> ## Optional
> # varcov: Variance-Covariance matrix - if default, then taken from the model object using vcov()
> # minimum: Smallest value of moderator for which a marginal effect is calculated, if "min" then equal to the minimum
value of the moderator in the dataset
> # maximum: Largest value of moderator for which a marginal effect is calculated, if "max" then equal to the maximum
value of the moderator in the dataset
> # num_points: Total number of points for which a marginal effect is calculated - increase to make confidence bounds
appear smoother
> # conf: Size of confidence interval around coefficient estimates - 0-1, default is .95 (95% confidence)
> # mean: Mark the mean mediator value by a vertical red line
> # median: Mark the median mediator value by a vertical blue line
> # alph: Transparency level of the histogram plot - 0-100, decrease to make the histogram more transparent
> # rugplot: Include a rug plot of the mediator values below the figure
> # histogram: Include a histogram of mediator values behind the figure - only plotted if minimum="min" and
maximum="max"
> # title: Title of the plot
> # xlabel: Label of the X axis
> # ylabel: Label of the Y axis
> interaction_plot_continuous <- function(model, effect, moderator, interaction, varcov="default", minimum="min",
maximum="max", incr="default", num_points = 50, conf=.95, mean=FALSE, median=FALSE, alph=80, rugplot=T, histogram=F,
title="Marginal effects plot", xlabel="Value of moderator", ylabel="Estimated marginal coefficient"){
+
+ # Define a function to make colors transparent
+ makeTransparent<-function(someColor, alpha=alph){
+   newColor<-col2rgb(someColor)
+   apply(newColor, 2, function(curcoldata){rgb(red=curcoldata[1], green=curcoldata[2],
+     blue=curcoldata[3],alpha=alpha, maxColorValue=255)})
+ }
+
+ # Extract Variance Covariance matrix
+ if (varcov == "default"){
+   covMat = vcov(model)
+ }else{

```

```

+   covMat = varcov
+ }
+
+ # Extract the data frame of the model
+ mod_frame = model.frame(model)
+
+ # Get coefficients of variables
+ beta_1 = model$coefficients[[effect]]
+ beta_3 = model$coefficients[[interaction]]
+
+ # Set range of the moderator variable
+ # Minimum
+ if (minimum == "min"){
+   min_val = min(mod_frame[[moderator]])
+ }else{
+   min_val = minimum
+ }
+ # Maximum
+ if (maximum == "max"){
+   max_val = max(mod_frame[[moderator]])
+ }else{
+   max_val = maximum
+ }
+
+ # Check if minimum smaller than maximum
+ if (min_val > max_val){
+   stop("Error: Minimum moderator value greater than maximum value.")
+ }
+
+ # Determine intervals between values of the moderator
+ if (incr == "default"){
+   increment = (max_val - min_val)/(num_points - 1)
+ }else{
+   increment = incr
+ }
+
+ # Create list of moderator values at which marginal effect is evaluated
+ x_2 <- seq(from=min_val, to=max_val, by=increment)
+
+ # Compute marginal effects
+ delta_1 = beta_1 + beta_3*x_2
+
+ # Compute variances
+ var_1 = covMat[effect,effect] + (x_2^2)*covMat[interaction, interaction] + 2*x_2*covMat[effect, interaction]
+
+ # Standard errors
+ se_1 = sqrt(var_1)
+
+ # Upper and lower confidence bounds
+ z_score = qnorm(1 - ((1 - conf)/2))
+ upper_bound = delta_1 + z_score*se_1
+ lower_bound = delta_1 - z_score*se_1
+
+ # Determine the bounds of the graphing area
+ max_y = max(upper_bound)
+ min_y = min(lower_bound)
+
+ # Make the histogram color
+ hist_col = makeTransparent("grey")
+
+ # Initialize plotting window
+ # plot(x=c(), y=c(), ylim=c(min_y, max_y), xlim=c(min_val, max_val), xlab=xlabel, ylab=ylabel, main=title) # this
is the default line
+ plot(x=c(), y=c(), ylim=c(-0.5, 0.01), xlim=c(min_val, max_val), xlab=xlabel, ylab=ylabel, main=title) # this line
customizes the y-axis
+
+ # Plot estimated effects
+ lines(y=delta_1, x=x_2)

```

```

+ lines(y=upper_bound, x=x_2, lty=2)
+ lines(y=lower_bound, x=x_2, lty=2)
+
+ # Add a dashed horizontal line for zero
+ abline(h=0, lty=3)
+
+ # Add a vertical line at the mean
+ if (mean){
+   abline(v = mean(mod_frame[[moderator]]), lty=2, col="red")
+ }
+
+ # Add a vertical line at the median
+ if (median){
+   abline(v = median(mod_frame[[moderator]]), lty=3, col="blue")
+ }
+
+ # Add Rug plot
+ if (rugplot){
+   rug(mod_frame[[moderator]])
+ }
+ # Add Histogram (Histogram only plots when minimum and maximum are the min/max of the moderator)
+ if (histogram & minimum=="min" & maximum=="max"){
+   par(new=T)
+   hist(mod_frame[[moderator]], axes=F, xlab="", ylab="",main="", border=hist_col, col=hist_col)
+ }
+ }
+
>
> ## interaction_plot_binary: Plots the marginal effect for one variable interacted with a binary variable
> ## Usage
> ## Required
> # model: linear or generalized linear model object returned by lm() or glm() function
> # effect: name of the "effect" variable in the interaction (marginal effect plotted on y-axis) - character string
> # moderator: name of the moderating variable in the interaction (plotted on x-axis) - character string - Variable
must be binary (0-1)
> # interaction: name of the interaction variable in the model object - character string
> ## Optional
> # varcov: Variance-Covariance matrix - if default, then taken from the model object using vcov()
> # conf: Size of confidence interval around coefficient estimates - 0-1, default is .95 (95% confidence)
> # title: Title of the plot
> # xlabel: Label of the X axis
> # ylabel: Label of the Y axis
> # factor_labels: Labels for each of the two moderator values - default = "0" and "1"
> interaction_plot_binary <- function(model, effect, moderator, interaction, varcov="default", conf=.95,
title="Marginal effects plot", xlabel="Value of moderator", ylabel="Estimated marginal coefficient",
factor_labels=c(0,1)){
+
+ # Extract Variance Covariance matrix
+ if (varcov == "default"){
+   covMat = vcov(model)
+ }else{
+   covMat = varcov
+ }
+
+ # Extract the data frame of the model
+ mod_frame = model.frame(model)
+
+ # Get coefficients of variables
+ beta_1 = model$coefficients[[effect]]
+ beta_3 = model$coefficients[[interaction]]
+
+ # Create list of moderator values at which marginal effect is evaluated
+ x_2 <- c(0,1)
+
+ # Compute marginal effects
+ delta_1 = beta_1 + beta_3*x_2
+
+ # Compute variances
+ var_1 = covMat[effect,effect] + (x_2^2)*covMat[interaction, interaction] + 2*x_2*covMat[effect, interaction]
+

```

```

+ # Standard errors
+ se_1 = sqrt(var_1)
+
+ # Upper and lower confidence bounds
+ z_score = qnorm(1 - ((1 - conf)/2))
+ upper_bound = delta_1 + z_score*se_1
+ lower_bound = delta_1 - z_score*se_1
+
+ # Determine the bounds of the graphing area
+ max_y = max(upper_bound)
+ min_y = min(lower_bound)
+
+ # Initialize plotting window
+ #plot(x=c(C), y=c(C), ylim=c(min_y, max_y), xlim=c(-.5, 1.5), xlab=xlabel, ylab=ylabel, main=title, xaxt="n")
#Default Code
+ plot(x=c(C), y=c(C), ylim=c(-0.5, 0.01), xlim=c(-0.5, 1.5), xlab=xlabel, ylab=ylabel, main=title, xaxt="n")
#Customize yLim
+
+ # Plot points of estimated effects
+ points(x=x_2, y=delta_1, pch=16)
+
+ # Plot lines of confidence intervals
+ lines(x=c(x_2[1], x_2[1]), y=c(upper_bound[1], lower_bound[1]), lty=1)
+ points(x=c(x_2[1], x_2[1]), y=c(upper_bound[1], lower_bound[1]), pch=c(25,24), bg="black")
+ lines(x=c(x_2[2], x_2[2]), y=c(upper_bound[2], lower_bound[2]), lty=1)
+ points(x=c(x_2[2], x_2[2]), y=c(upper_bound[2], lower_bound[2]), pch=c(25,24), bg="black")
+
+ # Label the axis
+ axis(side=1, at=c(0,1), labels=factor_labels)
+
+ # Add a dashed horizontal line for zero
+ abline(h=0, lty=3)
+
+ }
> #Create Figure 2 of manuscript: marginal effects of Punish Companies treatment for Democrats and Republicans
> # manually set ylim for plot to ylim(-0.5, 0.01)
> # export with height = 3.5, width = 4
> par(mar=c(2,5,3,1))
> interaction_plot_binary(AT.Strength.int, effect="Punish", moderator="rep",
+ interaction="rep:Punish", factor_labels=c("Democrat","Republican"),
+ xlabel="", ylabel="Effect of Punish Companies on \n Support for Strengthening Antitrust
Law",
+ title="")
>
>
>
>
> # Create Table A3 of the appendix: Results with Domestic Wording Only
> # Note - signs for significance were manually updated so "cross" is for p<0.1, * for p<0.05, and ** for p<0.01
> AT.Strength.int.for <- lm(AT.Strength ~ CompPrices + CompSmall + Punish, data = data[data$Foreign==0, ])
> AT.Strength.int.for.c <- lm(AT.Strength ~ CompPrices + CompSmall + Punish + rep + college + male + hh_income, data =
data[data$Foreign==0, ])
> stargazer(AT.Strength.int.for, AT.Strength.int.for.c, omit.stat = c("rsq", "adj.rsq", "ser", "f"), column.labels =
c("Strengthen Laws", "Economy"))

```

% Table created by stargazer v.5.2.2 by Marek Hlavac, Harvard University. E-mail: hlavac at fas.harvard.edu

% Date and time: Wed, Mar 12, 2025 - 09:40:51

```

\begin{table}[!htbp] \centering
\caption{}
\label{}
\begin{tabular}{@{\extracolsep{5pt}}lcc}
\hline
\hline \hline
& \multicolumn{2}{c}{\textit{Dependent variable:}} \hline
\cline{2-3}
\hline & \multicolumn{2}{c}{AT\Strength} \hline
& Strengthen Laws & Economy \hline
\hline & (1) & (2)\hline
\hline \hline

```

```

CompPrices & 0.032 & 0.028 \\
& (0.061) & (0.061) \\
& & \\
CompSmall & $-0.002 & $-0.004 \\
& (0.061) & (0.061) \\
& & \\
Punish & $-0.207$^{***}$ & $-0.203$^{***}$ \\
& (0.053) & (0.053) \\
& & \\
rep & & $-0.103$^{**}$ \\
& & (0.041) \\
& & \\
college & & 0.135$^{***}$ \\
& & (0.042) \\
& & \\
male & & 0.123$^{***}$ \\
& & (0.039) \\
& & \\
hh\_income & & 0.017 \\
& & (0.010) \\
& & \\
Constant & 3.676$^{***}$ & 3.525$^{***}$ \\
& (0.043) & (0.058) \\
& & \\
\hline \\[-1.8ex]
Observations & 2,220 & 2,187 \\
\hline
\hline \\[-1.8ex]
\textit{Note:} & \multicolumn{2}{r}{$^{*}$p$<$0.1; $^{**}$p$<$0.05; $^{***}$p$<$0.01} \\
\end{tabular}
\end{table}
>
> # Create Table A4 of the appendix: Tech Interactions
> # Note - signs for significance were manually updated so "cross" is for p<0.1, * for p<0.05, and ** for p<0.01
> AT.Strength.int.tech <- lm(AT_Strength ~ CompPrices*Tech + CompSmall*Tech + Punish*Tech, data = data)
> AT.Strength.int.c.tech <- lm(AT_Strength ~ CompPrices*Tech + CompSmall*Tech + Punish*Tech + college + male +
hh\_income, data = data)
> stargazer(AT.Strength.int.tech, AT.Strength.int.c.tech, omit.stat = c("rsq", "adj.rsq", "ser", "f"), column.labels =
c("Strengthen Laws", "Economy"))

% Table created by stargazer v.5.2.2 by Marek Hlavac, Harvard University. E-mail: hlavac at fas.harvard.edu
% Date and time: Wed, Mar 12, 2025 - 09:40:51
\begin{table}[!htbp] \centering
\caption{}
\label{}
\begin{tabular}{@{\extracolsep{5pt}}lcc}
\\[-1.8ex]\hline
\hline \\[-1.8ex]
& \multicolumn{2}{c}{\textit{Dependent variable:}} \\
\cline{2-3}
\\[-1.8ex] & \multicolumn{2}{c}{AT\_Strength} \\
& Strengthen Laws & Economy \\
\\[-1.8ex] & (1) & (2) \\
\hline \\[-1.8ex]
CompPrices & 0.004 & 0.006 \\
& (0.044) & (0.044) \\
& & \\
Tech & 0.304$^{*}$ & 0.273$^{*}$ \\
& (0.165) & (0.165) \\
& & \\
CompSmall & $-0.017 & $-0.020 \\
& (0.043) & (0.044) \\
& & \\
Punish & $-0.241$^{***}$ & $-0.237$^{***}$ \\
& (0.044) & (0.044) \\
& & \\
college & & 0.124$^{***}$ \\
& & (0.033) \\
& & \\

```

```

male & & 0.075$^{**}$ \\  

& & (0.031) \\  

& & \\  

hh\_income & & 0.005 \\  

& & (0.008) \\  

& & \\  

CompPrices:Tech & 0.035 & 0.032 \\  

& (0.245) & (0.244) \\  

& & \\  

Tech:CompSmall & 0.283 & 0.270 \\  

& (0.288) & (0.287) \\  

& & \\  

Tech:Punish & 0.167 & 0.167 \\  

& (0.242) & (0.241) \\  

& & \\  

Constant & 3.696$^{***}$ & 3.578$^{***}$ \\  

& (0.031) & (0.042) \\  

& & \\  

\hline \[-1.8ex]  

Observations & 3,536 & 3,487 \\  

\hline  

\hline \[-1.8ex]  

\textit{Note:} & \multicolumn{2}{r}{\textit{\$}^{*}\textit{\$}p<0.1; \textit{\$}^{**}\textit{\$}p<0.05; \textit{\$}^{***}\textit{\$}p<0.01} \\  

\end{tabular}  

\end{table}  

>  

> # Create Table A5 of the appendix: College Education Interactions for appendix  

> # Note - signs for significance were manually updated so "cross" is for p<0.1, * for p<0.05, and ** for p<0.01  

> AT.Strength.int.edu <- lm(AT_Strength ~ CompPrices*college + CompSmall*college + Punish*college, data = data)  

> AT.Strength.int.c.edu <- lm(AT_Strength ~ CompPrices*college + CompSmall*college + Punish*college + male +  

hh\_income, data = data)  

> stargazer(AT.Strength.int.edu, AT.Strength.int.c.edu, omit.stat = c("rsq", "adj.rsq", "ser", "f"), column.labels =  

c("Strengthen Laws", "Economy"))

```

% Table created by stargazer v.5.2.2 by Marek Hlavac, Harvard University. E-mail: hlavac at fas.harvard.edu
% Date and time: Wed, Mar 12, 2025 - 09:40:51

```

\begin{table}[!htbp] \centering  

\caption{}  

\label{}  

\begin{tabular}{@{\extracolsep{5pt}}lcc}  

\[-1.8ex]\hline  

\hline \[-1.8ex]  

& \multicolumn{2}{c}{\textit{Dependent variable:}} \\  

\cline{2-3}  

\[-1.8ex] & \multicolumn{2}{c}{AT\_Strength} \\  

& Strengthen Laws & Economy \\  

\[-1.8ex] & (1) & (2)\\  

\hline \[-1.8ex]  

CompPrices & 0.039 & 0.041 \\  

& (0.064) & (0.064) \\  

& & \\  

college & 0.145$^{**}$ & 0.131$^{**}$ \\  

& (0.061) & (0.062) \\  

& & \\  

CompSmall & $-0.003 & 0.001 \\  

& (0.064) & (0.064) \\  

& & \\  

Punish & $-0.282$^{***}$ & $-0.283$^{***}$ \\  

& (0.063) & (0.063) \\  

& & \\  

male & & 0.080$^{**}$ \\  

& & (0.031) \\  

& & \\  

hh\_income & & 0.006 \\  

& & (0.008) \\  

& & \\  

CompPrices:college & $-0.062 & $-0.066 \\  

& (0.086) & (0.086) \\  

& & \\  


```

```

college:CompSmall & $-$0.038 & $-$0.039 \\  

& (0.087) & (0.087) \\  

& & \\  

college:Punish & 0.096 & 0.096 \\  

& (0.087) & (0.087) \\  

& & \\  

Constant & 3.627$^{***}$ & 3.577$^{***}$ \\  

& (0.045) & (0.051) \\  

& & \\  

\hline \[-1.8ex]  

Observations & 3,491 & 3,487 \\  

\hline  

\hline \[-1.8ex]  

\textit{Note:} & \multicolumn{2}{r}{\textit{*}p<$0.1; \textit{**}p<$0.05; \textit{***}p<$0.01} \\  

\end{tabular}  

\end{table}
>  

> # Create Table A6 of the appendix: Political Knowledge Interactions  

> # Note - signs for significance were manually updated so "cross" is for p<0.1, * for p<0.05, and ** for p<0.01  

> # Measures of political knowledge  

> data$PK.brit <- ifelse(data$pol_knwldge_brit==3, 1, 0)  

> data$PK.house <- ifelse(data$pol_knwldge_house==1, 1, 0)  

> data$PK.tot <- data$PK.brit + data$PK.house # create consolidated measure of political knowledge  

> data$PK.high <- ifelse(data$PK.tot>1, 1, 0) # create high/low indicator for political knowledge  

>  

> AT.Strength.int.pk <- lm(AT_Strength ~ CompPrices*PK.high + CompSmall*PK.high + Punish*PK.high, data = data)  

> AT.Strength.int.c.pk <- lm(AT_Strength ~ CompPrices*PK.high + CompSmall*PK.high + Punish*PK.high + college + male +  

hh_income, data = data)  

> stargazer(AT.Strength.int.pk, AT.Strength.int.c.pk, omit.stat = c("rsq", "adj.rsq", "ser", "f"), column.labels =  

c("Strengthen Laws", "Economy"))

% Table created by stargazer v.5.2.2 by Marek Hlavac, Harvard University. E-mail: hlavac at fas.harvard.edu  

% Date and time: Wed, Mar 12, 2025 - 09:40:52  

\begin{table}[!htbp] \centering  

\caption{}  

\label{}  

\begin{tabular}{@{\extracolsep{5pt}}lcc}  

\[-1.8ex]\hline  

\hline \[-1.8ex]  

& \multicolumn{2}{c}{\textit{Dependent variable:}} \\  

\cline{2-3}  

\[-1.8ex] & \multicolumn{2}{c}{AT_Strength} \\  

& Strengthen Laws & Economy \\  

\[-1.8ex] & (1) & (2)\\  

\hline \[-1.8ex]  

CompPrices & 0.020 & 0.015 \\  

& (0.052) & (0.052) \\  

& & \\  

PK.high & 0.161$^{**}$ & 0.115$^{*}$ \\  

& (0.064) & (0.064) \\  

& & \\  

CompSmall & $-$0.001 & $-$0.015 \\  

& (0.052) & (0.052) \\  

& & \\  

Punish & $-$0.237$^{***}$ & $-$0.243$^{***}$ \\  

& (0.052) & (0.052) \\  

& & \\  

college & & 0.120$^{***}$ \\  

& & (0.033) \\  

& & \\  

male & & 0.067$^{**}$ \\  

& & (0.031) \\  

& & \\  

& & \\  

hh_income & & 0.003 \\  

& & (0.008) \\  

& & \\  

& & \\  

CompPrices:PK.high & $-$0.039 & $-$0.018 \\  

& (0.092) & (0.092) \\  

& & \\  

& & \\  


```

```

PK.high:CompSmall & $-$0.037 & $-$0.007 \\
& (0.093) & (0.093) \\
& & \\
PK.high:Punish & 0.017 & 0.047 \\
& (0.092) & (0.092) \\
& & \\
Constant & 3.653$^{***}$ & 3.559$^{***}$ \\
& (0.037) & (0.046) \\
& & \\
\hline \\[-1.8ex]
Observations & 3,532 & 3,483 \\
\hline
\hline \\[-1.8ex]
\textit{Note:} & \multicolumn{2}{r}{\textit{*}$p$<$0.1; \textit{*}$p$<$0.05; \textit{*}$p$<$0.01} \\
\end{tabular}
\end{table}
>
> # For section A.1 of the appendix: Module 1 DEMOGRAPHICS
> data$college <- ifelse(data$edu>3, 1, 0) #has a 2 or 4 yr degree or higher
>
> data$age_18to24 <- ifelse(data$age >=18 & data$age <25,1,0)
> data$age_25to39 <- ifelse(data$age >=25 & data$age <40, 1,0)
> data$age_40to59 <- ifelse(data$age >= 40 & data$age <60, 1,0)
> data$age_60plus <- ifelse(data$age >=60, 1,0)
>
> data$less50k <- ifelse(data$hh_income<=2,1,0)
> data$btw50_100k <- ifelse(data$hh_income>2 & data$hh_income<=4, 1,0)
> data$btw100_150k <- ifelse(data$hh_income>4 & data$hh_income <=6, 1,0)
> data$above150k <- ifelse(data$hh_income>=7,1,0)
>
> demo_names <- c("Age 18 to 24",
+ "Age 25 to 39",
+ "Age 40 to 59",
+ "Age >50",
+ "Female",
+ "Household income $0 to $50,000",
+ "Household income $50,001 to $100,000",
+ "Household income $100,001 to $150,000",
+ "Household income >$150,000",
+ "Attended college")
> demo_vars <- list(data$age_18to24,
+ data$age_25to39,
+ data$age_40to59,
+ data$age_60plus,
+ data$gender1, # 1 = male, 2 = female
+ data$less50k,
+ data$btw50_100k,
+ data$btw100_150k,
+ data$above150k,
+ data$college)
>
>
> pop_pct <- sprintf("%.3f",
+ round(c(# age breakdown from US Census Bureau 2019 Table 1: https://www.census.gov/data/tables/2019/demo/age-and-sex/2019-age-sex-composition.html (I ignore those <18)
+ 0.1321,
+ 0.2660,
+ 0.3251,
+ 0.2929,
+ .5097, # sex breakdown from US Census Bureau, 2019
+ .3707, #https://www.census.gov/data/tables/time-series/demo/income-poverty/cps-hinc/hinc-01.html
+ .2884,
+ .1555,
+ .1854,
+ 0.6108
+ ),digits=3)) # https://www.census.gov/content/census/en/data/tables/2019/demo/educational-attainment/cps-detailed-tables.html
>

```

```

> prop.function <- function(data){
+   prop <- as.numeric(prop.table(table(data))[2])
+   prop <- sprintf("%.3f",round(prop,digits=3))
+   return(prop)
+ }
>
> props <- lapply(demo_vars, prop.function)
>
> demo_props <- as.data.frame(cbind(demo_names, props, pop_pct))
> colnames(demo_props) <- c("Demographic", "Portion of US Sample", "U.S. Population")
> print(demo_props, row.names=F)
      Demographic Portion of US Sample U.S. Population
Age 18 to 24          0.120          0.132
Age 25 to 39          0.262          0.266
Age 40 to 59          0.357          0.325
Age >50               0.261          0.293
Female                0.523          0.510
Household income $0 to $50,000 0.449          0.371
Household income $50,001 to $100,000 0.328          0.288
Household income $100,001 to $150,000 0.140          0.156
Household income >$150,000 0.082          0.185
Attended college      0.536          0.611
>
> print(xtable(demo_props,
+             caption = "Study demographics. U.S. population information on age, sex, income, and education are from
the Census Bureau and are for 2019. Partisan identification is from Pew and covers registered voters for 2018/19."),
+       include.rownames=F)
% latex table generated in R 4.0.1 by xtable 1.8-4 package
% Wed Mar 12 09:40:52 2025
\begin{table}[ht]
\centering
\begin{tabular}{rrr}
\hline
Demographic & Portion of US Sample & U.S. Population \\
\hline
Age 18 to 24 & 0.120 & 0.132 \\
Age 25 to 39 & 0.262 & 0.266 \\
Age 40 to 59 & 0.357 & 0.325 \\
Age >$50 & 0.261 & 0.293 \\
Female & 0.523 & 0.510 \\
Household income \$0 to \$50,000 & 0.449 & 0.371 \\
Household income \$50,001 to \$100,000 & 0.328 & 0.288 \\
Household income \$100,001 to \$150,000 & 0.140 & 0.156 \\
Household income >$$150,000 & 0.082 & 0.185 \\
Attended college & 0.536 & 0.611 \\
\hline
\end{tabular}
\caption{Study demographics. U.S. population information on age, sex, income, and education are from the Census Bureau
and are for 2019. Partisan identification is from Pew and covers registered voters for 2018/19.}
\end{table}
>
> ##
> ## Module 2 analysis
> ##
>
> data2 <- read_csv("Antitrust_PSRM_Data_Module_2.csv", col_types = cols (.default = "i", DomFor2 = "c"))
Warning message:
Missing column names filled in: 'X1' [1]
>
> # Create dichotomous dependent variable do those who think antitrust laws should be "somehow" or "dramatically"
strengthened
> data2$F_StrengthPos <- ifelse(data2$F_Strength>3, 1, 0)
> data2$F_StrengthPos <- data2$F_StrengthPos*100
>
> #Effects of Equality and Democracy treatments
> F.Strength <- lm(F_Strength ~ F.Equality_Pro + F.Equity_Pro + F.Dem + F.Equality_Con + F.Equity_Con, data = data2)
> F.Strength.c <- lm(F_Strength ~ F.Equality_Pro + F.Equity_Pro + F.Dem + F.Equality_Con + F.Equity_Con + rep +
college + male + hh_income, data = data2)
> # Republican Equality and Democracy Interactions

```

```

> F.Strength.rep.int <- lm(F.Strength ~ F.Equality_Pro*rep + F.Equality_Pro*rep + F.Dem*rep + F.Equality_Con*rep +
F.Equality_Con*rep , data = data2[data2$party<3, ])
> F.Strength.c.rep.int <- lm(F.Strength ~ F.Equality_Pro*rep + F.Equality_Pro*rep + F.Dem*rep + F.Equality_Con*rep +
F.Equality_Con*rep + college + male + hh_income, data = data2[data2$party<3, ])
>
> #Create Table 2 of the manuscript
> # Note - the Negative-Equality and Negative-Equity treatment effects are omitted from Table 2 of the manuscript, but
are displayed in Tables A1 and A2 of the appendix
> # Note - signs for significance were manually updated so "cross" is for p<0.1, * for p<0.05, and ** for p<0.01
> stargazer(F.Strength, F.Strength.c, F.Strength.rep.int, F.Strength.c.rep.int, omit.stat = c("rsq", "adj.rsq",
"ser", "f"), column.labels = c(""))

```

% Table created by stargazer v.5.2.2 by Marek Hlavac, Harvard University. E-mail: hlavac at fas.harvard.edu

% Date and time: Wed, Mar 12, 2025 - 09:40:53

```

\begin{table}[!htbp] \centering
  \caption{}
  \label{}
\begin{tblr}{@{\extracolsep{5pt}}lcccc}
\hline
\hline \hline
& \multicolumn{4}{c}{\textit{Dependent variable:}} \\\
\cline{2-5}
\hline & \multicolumn{4}{c}{F\_Strength} \\\
& & & & \\\
\hline & (1) & (2) & (3) & (4) \\\
\hline
F\_Equality\_Pro & 0.095^{***} & 0.097^{***} & 0.111 & 0.115^{*} \\\
& (0.041) & (0.041) & (0.069) & (0.069) \\\
& & & & \\\
F\_Equity\_Pro & 0.099^{***} & 0.104^{***} & 0.112 & 0.111 \\\
& (0.041) & (0.041) & (0.068) & (0.068) \\\
& & & & \\\
F\_Dem & 0.070^{*} & 0.075^{*} & 0.161^{***} & 0.155^{***} \\\
& (0.041) & (0.041) & (0.069) & (0.069) \\\
& & & & \\\
F\_Equality\_Con & -$0.164^{***} & -$0.167^{***} & -$0.133^{*} & -$0.141^{***} \\\
& (0.041) & (0.041) & (0.071) & (0.070) \\\
& & & & \\\
F\_Equity\_Con & -$0.126^{***} & -$0.122^{***} & -$0.034 & -$0.039 \\\
& (0.041) & (0.041) & (0.070) & (0.070) \\\
& & & & \\\
F\_Equality\_Pro:rep & & & -$0.157 & -$0.171^{*} \\\
& & & (0.100) & (0.099) \\\
& & & & \\\
rep:F\_Equity\_Pro & & & -$0.129 & -$0.122 \\\
& & & (0.099) & (0.098) \\\
& & & & \\\
rep:F\_Dem & & & -$0.252^{***} & -$0.245^{***} \\\
& & & (0.100) & (0.099) \\\
& & & & \\\
rep:F\_Equality\_Con & & & -$0.099 & -$0.099 \\\
& & & (0.100) & (0.099) \\\
& & & & \\\
rep:F\_Equity\_Con & & & -$0.163 & -$0.156 \\\
& & & (0.100) & (0.100) \\\
& & & & \\\
rep & & & -$0.038 & 0.009 & -$0.015 \\\
& & & (0.025) & (0.070) & (0.070) \\\
& & & & & \\\
college & & & 0.102^{***} & & 0.074^{***} \\\
& & & (0.026) & & (0.031) \\\
& & & & & \\\
male & & & 0.148^{***} & & 0.153^{***} \\\
& & & (0.024) & & (0.029) \\\
& & & & & \\\
hh\_income & & & 0.013^{***} & & 0.020^{***} \\\
& & & (0.006) & & (0.008) \\\
& & & & & \\\
Constant & 3.611^{***} & 3.452^{***} & 3.685^{***} & 3.514^{***} \\\

```

```

& (0.029) & (0.037) & (0.048) & (0.054) \\
& & & & \\
\hline \\[-1.8ex]
Observations & 5,472 & 5,465 & 3,745 & 3,741 \\
\hline
\hline \\[-1.8ex]
\textit{Note:} & \multicolumn{4}{r}{\${}^{\ast}\$p\$<\$0.1; \${}^{\ast\ast}\$p\$<\$0.05; \${}^{\ast\ast\ast}\$p\$<\$0.01} \\
\end{tabular}
\end{table}
>
> #Create Table A1 of the appendix
> # Note - signs for significance were manually updated so "cross" is for p<0.1, * for p<0.05, and ** for p<0.01
> stargazer(F.Strength, F.Strength.c, omit.stat = c("rsq", "adj.rsq", "ser", "f"), column.labels = c(""))

% Table created by stargazer v.5.2.2 by Marek Hlavac, Harvard University. E-mail: hlavac at fas.harvard.edu
% Date and time: Wed, Mar 12, 2025 - 09:40:53
\begin{table}[!htbp] \centering
  \caption{}
  \label{}
  \begin{tabular}{@{\extracolsep{5pt}}lcc}
    \\[-1.8ex]\hline
    \hline \\[-1.8ex]
    & \multicolumn{2}{c}{\textit{Dependent variable:}} \\
    \cline{2-3}
    \\[-1.8ex] & \multicolumn{2}{c}{F\_Strength} \\
    & & \\
    \\[-1.8ex] & (1) & (2) \\
    \hline \\[-1.8ex]
    F\_Equality\_Pro & 0.095\${}^{\ast\ast}\$ & 0.097\${}^{\ast\ast}\$ \\
    & (0.041) & (0.041) \\
    & & \\
    F\_Equity\_Pro & 0.099\${}^{\ast\ast}\$ & 0.104\${}^{\ast\ast}\$ \\
    & (0.041) & (0.041) \\
    & & \\
    F\_Dem & 0.070\${}^{\ast}\$ & 0.075\${}^{\ast}\$ \\
    & (0.041) & (0.041) \\
    & & \\
    F\_Equality\_Con & \text{\$}-0.164\${}^{\ast\ast\ast}\$ & \text{\$}-0.167\${}^{\ast\ast\ast}\$ \\
    & (0.041) & (0.041) \\
    & & \\
    F\_Equity\_Con & \text{\$}-0.126\${}^{\ast\ast\ast}\$ & \text{\$}-0.122\${}^{\ast\ast\ast}\$ \\
    & (0.041) & (0.041) \\
    & & \\
    rep & \text{\$}-0.038 \\
    & & (0.025) \\
    & & \\
    college & & 0.102\${}^{\ast\ast\ast}\$ \\
    & & (0.026) \\
    & & \\
    male & & 0.148\${}^{\ast\ast\ast}\$ \\
    & & (0.024) \\
    & & \\
    hh\_income & & 0.013\${}^{\ast\ast}\$ \\
    & & (0.006) \\
    & & \\
    Constant & 3.611\${}^{\ast\ast\ast}\$ & 3.452\${}^{\ast\ast\ast}\$ \\
    & (0.029) & (0.037) \\
    & & \\
    \hline \\[-1.8ex]
    Observations & 5,472 & 5,465 \\
    \hline
    \hline \\[-1.8ex]
    \textit{Note:} & \multicolumn{2}{r}{\${}^{\ast}\$p\$<\$0.1; \${}^{\ast\ast}\$p\$<\$0.05; \${}^{\ast\ast\ast}\$p\$<\$0.01} \\
    \end{tabular}
  \end{table}
> #Create Table A2 of the appendix
> # Note - signs for significance were manually updated so "cross" is for p<0.1, * for p<0.05, and ** for p<0.01
> stargazer(F.Strength.rep.int, F.Strength.c.rep.int, omit.stat = c("rsq", "adj.rsq", "ser", "f"), column.labels = c(""))

```

% Table created by stargazer v.5.2.2 by Marek Hlavac, Harvard University. E-mail: hlavac at fas.harvard.edu

% Date and time: Wed, Mar 12, 2025 - 09:40:53

\begin{table}[!htbp] \centering

\caption{}

\label{}

\begin{tabular}{@{\extracolsep{5pt}}lcc}

\\[-1.8ex]\hline

\hline \\[-1.8ex]

& \multicolumn{2}{c}{\textit{Dependent variable:}} \\\

\cline{2-3}

\\[-1.8ex] & \multicolumn{2}{c}{F_Strength} \\\

& & \\\

\\[-1.8ex] & (1) & (2) \\\

\hline \\[-1.8ex]

F_Equality_Pro & 0.111 & 0.115\$^{*}\$ \\\

& (0.069) & (0.069) \\\

& & \\\

rep & 0.009 & \$-0.015 \\\

& (0.070) & (0.070) \\\

& & \\\

F_Equity_Pro & 0.112 & 0.111 \\\

& (0.068) & (0.068) \\\

& & \\\

F_Dem & 0.161\$^{**}\$ & 0.155\$^{**}\$ \\\

& (0.069) & (0.069) \\\

& & \\\

F_Equality_Con & \$-0.133\$^{*}\$ & \$-0.141\$^{**}\$ \\\

& (0.071) & (0.070) \\\

& & \\\

F_Equity_Con & \$-0.034\$ & \$-0.039 \\\

& (0.070) & (0.070) \\\

& & \\\

college & & 0.074\$^{**}\$ \\\

& & (0.031) \\\

& & \\\

male & & 0.153\$^{***}\$ \\\

& & (0.029) \\\

& & \\\

hh_income & & 0.020\$^{***}\$ \\\

& & (0.008) \\\

& & \\\

F_Equality_Pro:rep & \$-0.157\$ & \$-0.171\$^{*}\$ \\\

& (0.100) & (0.099) \\\

& & \\\

rep:F_Equity_Pro & \$-0.129\$ & \$-0.122 \\\

& (0.099) & (0.098) \\\

& & \\\

rep:F_Dem & \$-0.252\$^{**}\$ & \$-0.245\$^{**}\$ \\\

& (0.100) & (0.099) \\\

& & \\\

rep:F_Equality_Con & \$-0.099\$ & \$-0.099 \\\

& (0.100) & (0.099) \\\

& & \\\

rep:F_Equity_Con & \$-0.163\$ & \$-0.156 \\\

& (0.100) & (0.100) \\\

& & \\\

Constant & 3.685\$^{***}\$ & 3.514\$^{***}\$ \\\

& (0.048) & (0.054) \\\

& & \\\

\hline \\[-1.8ex]

Observations & 3,745 & 3,741 \\\

\hline

\hline \\[-1.8ex]

\textit{Note:} & \multicolumn{2}{r}{\$^{*}\$p<\$0.1; \$^{**}\$p<\$0.05; \$^{***}\$p<\$0.01} \\\

\end{tabular}

\end{table}

>

>

```

> #Effects in percentages for in-text discussion
> F.Strength.Pos <- lm(F.StrengthPos ~ F_Equality_Pro + F_Equity_Pro + F_Dem + F_Equality_Con + F_Equity_Con, data =
data2)
> summary(F.Strength.Pos)# equality=4.9%, equity=5.3%

```

```

Call:
lm(formula = F.StrengthPos ~ F_Equality_Pro + F_Equity_Pro +
    F_Dem + F_Equality_Con + F_Equity_Con, data = data2)

```

```

Residuals:
    Min       1Q   Median       3Q      Max
-60.79 -55.48  39.21  44.52  53.33

```

```

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)    55.484     1.623  34.190 < 2e-16 ***
F_Equality_Pro  4.889      2.307   2.119 0.034099 *
F_Equity_Pro    5.305      2.306   2.301 0.021442 *
F_Dem           1.972      2.306   0.855 0.392491
F_Equality_Con -8.810      2.313  -3.809 0.000141 ***
F_Equity_Con   -5.926      2.311  -2.564 0.010376 *
---

```

```

Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

```

Residual standard error: 49.49 on 5466 degrees of freedom
(3 observations deleted due to missingness)
Multiple R-squared:  0.01122, Adjusted R-squared:  0.01031
F-statistic: 12.4 on 5 and 5466 DF, p-value: 5.453e-12

```

```

>
>
> ## Two-variable interaction plots in R
> ## Anton Strezhnev
> ## 06/17/2013
>
> ## interaction_plot_continuous: Plots the marginal effect for one variable interacted with a continuous moderator
variable
> ## Usage
> ## Required
> # model: linear or generalized linear model object returned by lm() or glm() function
> # effect: name of the "effect" variable in the interaction (marginal effect plotted on y-axis) - character string
> # moderator: name of the moderating variable in the interaction (plotted on x-axis) - character string
> # interaction: name of the interaction variable in the model object - character string
> ## Optional
> # varcov: Variance-Covariance matrix - if default, then taken from the model object using vcov()
> # minimum: Smallest value of moderator for which a marginal effect is calculated, if "min" then equal to the minimum
value of the moderator in the dataset
> # maximum: Largest value of moderator for which a marginal effect is calculated, if "max" then equal to the maximum
value of the moderator in the dataset
> # num_points: Total number of points for which a marginal effect is calculated - increase to make confidence bounds
appear smoother
> # conf: Size of confidence interval around coefficient estimates - 0-1, default is .95 (95% confidence)
> # mean: Mark the mean mediator value by a vertical red line
> # median: Mark the median mediator value by a vertical blue line
> # alph: Transparency level of the histogram plot - 0-100, decrease to make the histogram more transparent
> # rugplot: Include a rug plot of the mediator values below the figure
> # histogram: Include a histogram of mediator values behind the figure - only plotted if minimum="min" and
maximum="max"
> # title: Title of the plot
> # xlabel: Label of the X axis
> # ylabel: Label of the Y axis
> interaction_plot_continuous <- function(model, effect, moderator, interaction, varcov="default", minimum="min",
maximum="max", incr="default", num_points = 50, conf=.95, mean=FALSE, median=FALSE, alph=80, rugplot=T, histogram=F,
title="Marginal effects plot", xlabel="Value of moderator", ylabel="Estimated marginal coefficient"){
+
+ # Define a function to make colors transparent
+ makeTransparent<-function(someColor, alpha=alph){
+   newColor<-col2rgb(someColor)
+   apply(newColor, 2, function(curcoldata){rgb(red=curcoldata[1], green=curcoldata[2],

```

```

+     blue=curcoldata[3],alpha=alpha, maxColorValue=255)})
+ }
+
+ # Extract Variance Covariance matrix
+ if (varcov == "default"){
+   covMat = vcov(model)
+ }else{
+   covMat = varcov
+ }
+
+ # Extract the data frame of the model
+ mod_frame = model.frame(model)
+
+ # Get coefficients of variables
+ beta_1 = model$coefficients[[effect]]
+ beta_3 = model$coefficients[[interaction]]
+
+ # Set range of the moderator variable
+ # Minimum
+ if (minimum == "min"){
+   min_val = min(mod_frame[[moderator]])
+ }else{
+   min_val = minimum
+ }
+ # Maximum
+ if (maximum == "max"){
+   max_val = max(mod_frame[[moderator]])
+ }else{
+   max_val = maximum
+ }
+
+ # Check if minimum smaller than maximum
+ if (min_val > max_val){
+   stop("Error: Minimum moderator value greater than maximum value.")
+ }
+
+ # Determine intervals between values of the moderator
+ if (incr == "default"){
+   increment = (max_val - min_val)/(num_points - 1)
+ }else{
+   increment = incr
+ }
+
+ # Create list of moderator values at which marginal effect is evaluated
+ x_2 <- seq(from=min_val, to=max_val, by=increment)
+
+ # Compute marginal effects
+ delta_1 = beta_1 + beta_3*x_2
+
+ # Compute variances
+ var_1 = covMat[effect,effect] + (x_2^2)*covMat[interaction, interaction] + 2*x_2*covMat[effect, interaction]
+
+ # Standard errors
+ se_1 = sqrt(var_1)
+
+ # Upper and lower confidence bounds
+ z_score = qnorm(1 - ((1 - conf)/2))
+ upper_bound = delta_1 + z_score*se_1
+ lower_bound = delta_1 - z_score*se_1
+
+ # Determine the bounds of the graphing area
+ max_y = max(upper_bound)
+ min_y = min(lower_bound)
+
+ # Make the histogram color
+ hist_col = makeTransparent("grey")
+
+ # Initialize plotting window
+ # plot(x=c(), y=c(), ylim=c(min_y, max_y), xlim=c(min_val, max_val), xlab=xlabel, ylab=ylabel, main=title) # this

```

```

is the default line
+ plot(x=c(), y=c(), ylim=c(-0.25, 0.3), xlim=c(min_val, max_val), xlab=xlabel, ylab=ylabel, main=title) # this line
customizes the y-axis
+
+
+ # Plot estimated effects
+ lines(y=delta_1, x=x_2)
+ lines(y=upper_bound, x=x_2, lty=2)
+ lines(y=lower_bound, x=x_2, lty=2)
+
+ # Add a dashed horizontal line for zero
+ abline(h=0, lty=3)
+
+ # Add a vertical line at the mean
+ if (mean){
+   abline(v = mean(mod_frame[[moderator]]), lty=2, col="red")
+ }
+
+ # Add a vertical line at the median
+ if (median){
+   abline(v = median(mod_frame[[moderator]]), lty=3, col="blue")
+ }
+
+ # Add Rug plot
+ if (rugplot){
+   rug(mod_frame[[moderator]])
+ }
+ # Add Histogram (Histogram only plots when minimum and maximum are the min/max of the moderator)
+ if (histogram & minimum=="min" & maximum=="max"){
+   par(new=T)
+   hist(mod_frame[[moderator]], axes=F, xlab="", ylab="",main="", border=hist_col, col=hist_col)
+ }
+ }
+
>
> ## interaction_plot_binary: Plots the marginal effect for one variable interacted with a binary variable
> ## Usage
> ## Required
> # model: linear or generalized linear model object returned by lm() or glm() function
> # effect: name of the "effect" variable in the interaction (marginal effect plotted on y-axis) - character string
> # moderator: name of the moderating variable in the interaction (plotted on x-axis) - character string - Variable
must be binary (0-1)
> # interaction: name of the interaction variable in the model object - character string
> ## Optional
> # varcov: Variance-Covariance matrix - if default, then taken from the model object using vcov()
> # conf: Size of confidence interval around coefficient estimates - 0-1, default is .95 (95% confidence)
> # title: Title of the plot
> # xlabel: Label of the X axis
> # ylabel: Label of the Y axis
> # factor_labels: Labels for each of the two moderator values - default = "0" and "1"
> interaction_plot_binary <- function(model, effect, moderator, interaction, varcov="default", conf=.95,
title="Marginal effects plot", xlabel="Value of moderator", ylabel="Estimated marginal coefficient",
factor_labels=c(0,1)){
+
+ # Extract Variance Covariance matrix
+ if (varcov == "default"){
+   covMat = vcov(model)
+ }else{
+   covMat = varcov
+ }
+
+ # Extract the data frame of the model
+ mod_frame = model.frame(model)
+
+ # Get coefficients of variables
+ beta_1 = model$coefficients[[effect]]
+ beta_3 = model$coefficients[[interaction]]
+
+ # Create list of moderator values at which marginal effect is evaluated
+ x_2 <- c(0,1)

```

```

+
+ # Compute marginal effects
+ delta_1 = beta_1 + beta_3*x_2
+
+ # Compute variances
+ var_1 = covMat[effect,effect] + (x_2^2)*covMat[interaction, interaction] + 2*x_2*covMat[effect, interaction]
+
+ # Standard errors
+ se_1 = sqrt(var_1)
+
+ # Upper and lower confidence bounds
+ z_score = qnorm(1 - ((1 - conf)/2))
+ upper_bound = delta_1 + z_score*se_1
+ lower_bound = delta_1 - z_score*se_1
+
+ # Determine the bounds of the graphing area
+ max_y = max(upper_bound)
+ min_y = min(lower_bound)
+
+ # Initialize plotting window
+ #plot(x=c(), y=c(), ylim=c(min_y, max_y), xlim=c(-.5, 1.5), xlab=xlabel, ylab=ylabel, main=title, xaxt="n")
#Default Code
+ plot(x=c(), y=c(), ylim=c(-0.25,0.3), xlim=c(-0.5, 1.5), xlab=xlabel, ylab=ylabel, main=title, xaxt="n")
#Customize yLim
+
+ # Plot points of estimated effects
+ points(x=x_2, y=delta_1, pch=16)
+
+ # Plot lines of confidence intervals
+ lines(x=c(x_2[1], x_2[1]), y=c(upper_bound[1], lower_bound[1]), lty=1)
+ points(x=c(x_2[1], x_2[1]), y=c(upper_bound[1], lower_bound[1]), pch=c(25,24), bg="black")
+ lines(x=c(x_2[2], x_2[2]), y=c(upper_bound[2], lower_bound[2]), lty=1)
+ points(x=c(x_2[2], x_2[2]), y=c(upper_bound[2], lower_bound[2]), pch=c(25,24), bg="black")
+
+ # Label the axis
+ axis(side=1, at=c(0,1), labels=factor_labels)
+
+ # Add a dashed horizontal line for zero
+ abline(h=0, lty=3)
+
+ }
>
> #Create Figure 3 of manuscript: marginal effects of Democracy treatment for Democrats and Republicans
> # manually set ylim for plot to ylim(-0.25, 0.3)
> # export with height = 3.5, width = 4
> par(mar=c(2,5,3,1))
> interaction_plot_binary(F.Strength.rep.int, effect="F_Dem", moderator="rep",
+                         interaction="rep:F_Dem", factor_labels=c("Democrat","Republican"),
+                         xlabel="", ylabel="Effect of Democracy Treatment on \n Support for Strengthening Antitrust
Law",
+                         title="")
>
>
> # For section A.1 of the appendix: Module 2 DEMOGRAPHICS
> data2$college <- ifelse(data2$edu>3, 1, 0) #has a 2 or 4 yr degree or higher
>
> data2$age_18to24 <- ifelse(data2$age >=18 & data2$age <25,1,0)
> data2$age_25to39 <- ifelse(data2$age >=25 & data2$age <40, 1,0)
> data2$age_40to59 <- ifelse(data2$age >= 40 & data2$age <60, 1,0)
> data2$age_60plus <- ifelse(data2$age >=60, 1,0)
>
> data2$less50k <- ifelse(data2$hh_income<=2,1,0)
> data2$btw50_100k <- ifelse(data2$hh_income>2 & data2$hh_income<=4, 1,0)
> data2$btw100_150k <- ifelse(data2$hh_income>4 & data2$hh_income <=6, 1,0)
> data2$above150k <- ifelse(data2$hh_income>=7,1,0)
>
> demo_names <- c("Age 18 to 24",
+                 "Age 25 to 39",
+                 "Age 40 to 59",

```

```

+         "Age >50",
+         "Female",
+         "Household income $0 to $50,000",
+         "Household income $50,001 to $100,000",
+         "Household income $100,001 to $150,000",
+         "Household income >$150,000",
+         "Attended college")
> demo_vars <- list(data2$age_18to24,
+                 data2$age_25to39,
+                 data2$age_40to59,
+                 data2$age_60plus,
+                 data2$gender1, # 1 = male, 2 = female
+                 data2$less50k,
+                 data2$btw50_100k,
+                 data2$btw100_150k,
+                 data2$above150k,
+                 data2$college)
>
>
> pop_pct <- sprintf("%.3f",
+                   round(c(# age breakdown from US Census Bureau 2019 Table 1: https://www.census.gov/data2/tables/
2019/demo/age-and-sex/2019-age-sex-composition.html (I ignore those <18)
+                       0.1321,
+                       0.2660,
+                       0.3251,
+                       0.2929,
+                       .5097, # sex breakdown from US Census Bureau, 2019
+                       .3707, #https://www.census.gov/data2/tables/time-series/demo/income-poverty/cps-hinc/
hinc-01.html
+                       .2884,
+                       .1555,
+                       .1854,
+                       0.6108
+                       ),digits=3)) # https://www.census.gov/content/census/en/data2/tables/2019/demo/educational-
attainment/cps-detailed-tables.html
>
> prop.function <- function(data2){
+   prop <- as.numeric(prop.table(table(data2))[2])
+   prop <- sprintf("%.3f",round(prop,digits=3))
+   return(prop)
+ }
>
> props <- lapply(demo_vars, prop.function)
>
>
> demo_props <- as.data.frame(cbind(demo_names, props, pop_pct))
> colnames(demo_props) <- c("Demographic", "Portion of US Sample", "U.S. Population")
> print(demo_props, row.names=F)
      Demographic Portion of US Sample U.S. Population
Age 18 to 24          0.118          0.132
Age 25 to 39          0.269          0.266
Age 40 to 59          0.346          0.325
Age >50               0.266          0.293
Female                0.514          0.510
Household income $0 to $50,000 0.446          0.371
Household income $50,001 to $100,000 0.330          0.288
Household income $100,001 to $150,000 0.137          0.156
Household income >$150,000 0.087          0.185
Attended college      0.544          0.611
>
> print(xtable(demo_props,
+             caption = "Study demographics. U.S. population information on age, sex, income, and education are from
the Census Bureau and are for 2019. Partisan identification is from Pew and covers registered voters for 2018/19."),
+       include.rownames=F)
% latex table generated in R 4.0.1 by xtable 1.8-4 package
% Wed Mar 12 09:42:24 2025
\begin{table}[ht]
\centering
\begin{tabular}{rrrr}

```

```

\hline
Demographic & Portion of US Sample & U.S. Population \\
\hline
Age 18 to 24 & 0.118 & 0.132 \\
Age 25 to 39 & 0.269 & 0.266 \\
Age 40 to 59 & 0.346 & 0.325 \\
Age >$50 & 0.266 & 0.293 \\
Female & 0.514 & 0.510 \\
Household income \$0 to \$50,000 & 0.446 & 0.371 \\
Household income \$50,001 to \$100,000 & 0.330 & 0.288 \\
Household income \$100,001 to \$150,000 & 0.137 & 0.156 \\
Household income >=$150,000 & 0.087 & 0.185 \\
Attended college & 0.544 & 0.611 \\
\hline

```

```

\end{tabular}
\caption{Study demographics. U.S. population information on age, sex, income, and education are from the Census Bureau
and are for 2019. Partisan identification is from Pew and covers registered voters for 2018/19.}
\end{table}

```

```

>
>
>

```